

Title (en)

Air spring with lateral restraint and axial control

Title (de)

Luftfeder mit Seitenführung und axialer Steuerung

Title (fr)

Ressort à air avec retenue latérale et commande axiale

Publication

EP 1122459 A2 20010808 (EN)

Application

EP 01101525 A 20010124

Priority

US 49441600 A 20000131

Abstract (en)

The air spring (10) is comprised of a flexible airsleeve (12), a retainer (14), and a main piston (18). The airsleeve (12) is secured at one end by the retainer (14) and at the opposing end by the main piston (18). A hollow restraining piston (24) extends from the retainer (14) and into the main piston (18). The restraining piston (24) acts as a lateral stabilizer, over extension restraint and height control. The hollow region (38) in the restraining piston (24) communicates through at least one passage (68) with an air chamber (42) formed between the airsleeve (12) and the outer surfaces of the restraining piston (24) and the main piston (18). Fluid is admitted to or exhausted from the air spring (10) through a valve which functions relative to the displacement of the restraining piston (24) and the main piston (18). <IMAGE>

IPC 1-7

F16F 9/05

IPC 8 full level

B60G 11/28 (2006.01); **B60G 17/048** (2006.01); **B60G 17/052** (2006.01); **F16F 9/05** (2006.01)

CPC (source: EP US)

B60G 11/28 (2013.01 - EP US); **B60G 17/0485** (2013.01 - EP US); **B60G 17/0521** (2013.01 - EP US); **F16F 9/05** (2013.01 - EP US); **B60G 2202/412** (2013.01 - EP US); **B60G 2202/415** (2013.01 - EP US); **B60G 2204/126** (2013.01 - EP US); **B60G 2206/424** (2013.01 - EP US); **B60G 2500/2044** (2013.01 - EP US)

Cited by

EP1870268A1; EP1484205A3; RU2662299C1; EP2310716A4; US2014346749A1; US9248716B2; EP2846061A1; CN104534007A; WO2008089141A1; WO2098686A1; WO2005092646A1; US7497423B2; US7150450B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1122459 A2 20010808; **EP 1122459 A3 20010926**; **EP 1122459 B1 20041103**; BR 0100118 A 20010828; DE 60106791 D1 20041209; DE 60106791 T2 20051027; JP 2001241479 A 20010907; JP 4856316 B2 20120118; US 6402128 B1 20020611

DOCDB simple family (application)

EP 01101525 A 20010124; BR 0100118 A 20010119; DE 60106791 T 20010124; JP 2001021640 A 20010130; US 49441600 A 20000131